CIVIL AIM CONSULTANTS & ENGINEERS

(Building Geo-Tech & Highway Materials Testing Laboratory)

An ISO 9001-2015 Certified Company

NABL Accredited As Per ISO/IEC 17025:2017 Laboratory

QC ABSTRACT

Nameof Work: Improvements to roads and drains in Susheelamma Layout And ISAAC Layout in Chowdeshwari Ward No-02 Of Yelahanka Sub Division, BBMP, Bangalore.

Sl. No.	Item	Quantity As Per BOQ	Required No's of testes	Actual No's of testes	Testes Results
1	GSB - V	43.46 Cum	1	1	Pass
2	WMM	65.19 Cum	-	-	-
		Gradation	1	1	Pass
		AIV	1	1	Pass
		Shape Test	1	1	Pass
		Atterberg Limits	1	1	Pass
3	DBM	14.49 Cum	-	-	-
		Quality of Binder	1	1	Pass
		AIV	1	1	Pass
		Shape Test	1	1	Pass
		Gradation	1	1	Pass
		Specific Gravity	1	1	Pass
		Stability of Mix	1	1	Pass
		Bitumen content	1	1	Pass
4	BC	69.18 Cum	-	-	-
		Quality of Binder	1	1	Pass
		AIV	1	1	Pass
		Shape Test	1	1	Pass
		Gradation	1	1	Pass
		Specific Gravity	1	1	Pass
		Stability of Mix	2	2	Pass
		Bitumen content	2	2	Pass

A.E.E

For CIVIL AIM CONSULTANTS & ENGINEERS

Authorised Signatory

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JobNo: CACE/BBMP/RYB/W.No.02/2022-23 Date 22.02.2023

GRADATION FOR GSB (Grading V)

Client	: **Assistant Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.
Agency	: **Sri. Ramesh Y B, S/o Basavaraj,** Contractor, Bangalore.
Name of work	: Improvements to roads and drains in Susheelamma Layout And ISAAC Layout in Chowdeshwari Ward No-02 Of Yelahanka Sub Division, BBMP, Bangalore.
BIS Code	: IS 2386 Part (1):1963 : IS 2720 part (5):1985
Date of Testing	: 20.02.2023 to 22.02.2023

Oven Dry Wt (gm) : 13000

TABLE – 1

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Requirements as per MORTH 5th edition table 400.1
75	0	0	0.00	100	100
53	765	765	5.88	94.12	80-100
26.5	2158	2923	22.48	77.52	55-90
9.5	2065	4988	38.37	61.63	35-65
4.75	1869	6857	52.75	47.25	25-50
2.36	3689	10546	81.12	18.88	10-20
0.85	1720	12266	94.35	5.65	2-10
0.425	265	12531	96.39	3.61	0-5

Table 2

Sl. No.	Particulars	Test Results	Requirements as per MORTH 5th edition table 400.2
1	Liquid Limit, %	19.50	25.0% Maximum.
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

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Remarks: Satisfies MORTH Specifications as per Table 400-1, Grading V

Note:

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Date : 08.03.2023

Job No.: CACE/BBMP/RYB/W.No.02/2022-23

Aggregate Gradation Test

IS : 2386 Part I

Client	**Assistant Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.
Agency	**Sri. Ramesh Y B, S/o Basavaraju,** Contractor, Bangalore.
Name of the Work	Improvements to roads and drains In Susheelamma Layout And ISSAC Layout In Chowdeshwari Ward No-02 Of Yelahanka Sub Division, BBMP, Bangalore.
BIS Code	IS 2386(Part 1):1963
Sample I / D	Hot Mix Plant, Bangalore
Type of Mix	Bituminous Concrete
Date of Testing	08.03.2023

Total Weight of Sample: **5000** gm

SIEVE SIZE, mm	Weight Retained, gm	% Retained	Cummulative % Retained	% Passing	Requirement as per MORTH table 500.17	Remarks
19	0	0	0	100	100	Gradation satisfies Bituminous concrete Grade-II specification as per MORTH
13.2	410	8.20	8.20	91.80	90 - 100	
9.5	489	9.78	17.98	82.02	70 - 88	
4.75	630	12.60	30.58	69.42	53 - 71	
2.36	675	13.50	44.08	55.92	42 - 58	
1.18	526	10.52	54.60	45.40	34 - 48	
0.600	542	10.84	65.44	34.56	26 - 38	
0.300	489	9.78	75.22	24.78	18 - 28	
0.150	365	7.30	82.52	17.48	12 - 20	
0.075	480	9.60	92.12	7.88	4 - 10	

Total Weight of Sample: **5000** gm

SIEVE SIZE, mm	Weight Retained, gm	% Retained	Cummulative % Retained	% Passing	Requirement as per MORTH table 500.17	Remarks
19	0	0	0	100	100	Gradation satisfies Bituminous concrete Grade-II specification as per MORTH
13.2	426	8.52	8.52	91.48	90 - 100	
9.5	542	10.84	19.36	80.64	70 - 88	
4.75	685	13.70	33.06	66.94	53 - 71	
2.36	630	12.60	45.66	54.34	42 - 58	
1.18	556	11.12	56.78	43.22	34 - 48	
0.600	549	10.98	67.76	32.24	26 - 38	
0.300	642	12.84	80.60	19.40	18 - 28	
0.150	189	3.78	84.38	15.62	12 - 20	
0.075	486	9.72	94.10	5.90	4 - 10	

A.E.E

Note:

⇒ This test report should not be reproduced except in full, without written approval of the laboratory

⇒ The results indicated above are based on the tests carried out on the samples collected at the site.

⇒ Any Query regarding the report must be reported within 30 days from the date of testing.

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Job No.: CACE/BBMP/RYB/W.No.02/2022-23

Date: 15.03.2023

TEST REPORT ON STABILITY OF MIX

Client	:	**Assistant Executive Engineer,** Yelahanka Sub Division, BBMP, Bangalore.
Agency	:	**Sri. Ramesh Y B, S/o Basavaraju,** Contractor, Bangalore.
Name of the Work	:	Improvements to roads and drains In Susheelamma Layout And ISSAC Layout In Chowdeshwari Ward No-02 Of Yelahanka Sub Division, BBMP, Bangalore.
Source of location	:	Hot mix Plant, Bangalore
Type of Mix	:	Bituminous Concrete
Date of Testing	:	15.03.2023

The results of the tests conducted on the Bituminous Concrete mix sample are as follows:

Sl. No	Description	Test Result 1	Test Result 2	Requirement as per MORTH (Table 500-19)
1	Marshal Stability, Kn	10.42	9.74	9 Kn (min)
2	Marshal flow, mm	3.89	2.85	2 – 4
3	Percent air voids in Mineral Aggregate	13.32	14.68	13 – 15
4	Voids in Compacted Mix	3.42	4.72	3 – 6
5	Percent Voids filled with Bitumen	70.41	69.53	65 - 75
6	Density, g/cc	2.26	2.27	--

Note:

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